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| EXAMINER |
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DEL SOLE, JOSEPH S

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| ART UNIT | PAPER NUMBER |
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1722

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,084

Applicant(s)

JOSEPH, DANIEL R.

Examiner

Joseph S. Del Sole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-15 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-11, drawn to an apparatus, classified in class 425, subclass 72.1.
 - II. Claims 12-15, drawn to a method, classified in class 264.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practiced by another and materially different apparatus, such as one without a supply blower and an exhaust blower.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Newly submitted claims 12-15 are directed to an invention that is independent or distinct from the invention originally claimed for the reasons stated above.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

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prosecution on the merits. Accordingly, claims 12-15 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. The abstract of the disclosure is objected to because **a)** the abstract should include a summary of the sizing cage subsystem. Correction is required. See MPEP § 608.01(b).
3. The disclosure is objected to because of the following informalities: **a)** the title currently refers to both a method and an apparatus, but since only an apparatus is claimed the title should be amended to reflect this.

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Appropriate correction is required.

Claim Objections

4. Claims 7, 9 and 11 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 7 fails to describe the two modes of operation in such a way to structurally differentiate the cage position control routine from that which is claimed in claims 1 and 6. The Examiner notes that "relatively large distance" and "relatively small distance" do not further limit the relationships already claimed and further do not define relative relationships between the distance of the cage subsystem in the two modes. Claim 9 fails to further limit because claim 7 in which "contact mode" is defined is itself not further limiting. Furthermore, claim 9 introduces method limitations only. Structural limitations must be included which set forth that which makes the apparatus capable of moving inward or outward. Claim 11 does not further limit claim 8 because "to a desired position for said extruded film tube" is not a further-limiting structural recitation.

Appropriate correction is required.

5. Claim 1 is objected to because of the following informalities: **a)** "routine which utilizes" in section (f) of claim 1 should be changed to -- routine which is capable of utilizing--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 7 are vague and indefinite because it is unclear whether the "predetermined set point" limitation is a method limitation or a structural limitation. The Examiner suggests changing "which utilizes" to --which is capable of utilizing--.

Claim 7 is vague and indefinite because it is unclear what distances from a predetermined set point are necessary to differentiate a mode of operation from being forecast or contact. The Examiner notes that "relatively large distance" and "relatively small distance" do not further limit the relationships already claimed and further do not define relative relationships between the distance of the cage subsystem in the two modes.

Claim 10 is vague and indefinite because it fails to clearly describe how the lay flat control system adjusts a finished product diameter. The limitation "control signals are supplied to said controller by said cage position control routine to said layflat control system" is unclear because it is unclear what is going "to said layflat control system". As the limitation reads, the cage position control routine supplies control signals to the controller. The function of the layflat control system is unspecified. Furthermore, it is unclear what measurements are inaccurate in the limitation "which are inaccurate measurements".

Claim 11 is vague and indefinite because it is unclear what position is a desired position.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-3, 6-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joseph (5,525,277).

Joseph teaches a blown film apparatus, that corresponds to the instant apparatus, which includes an annular die 705 for extruding a film as a tube, means for pulling the tube along a predetermined path, and an apparatus for startup of the extruded film tube including means for varying a quantity of air within the extruded film tube, including a supply blower 729 which supplies air to the extruded film tube in an amount corresponding to a supply control signal, and an exhaust blower 749 which exhausts air from the extruded film tube in an amount corresponding to an exhaust

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control signal, and a control member 753 including executable program instructions which define at least one control routine for automatic and coordinated control of the means for varying during starting of the extruded film tube by directing a series of supply control signals to the supply blower and exhaust control signals to the exhaust blower (col 14, line 3 - col 15, line 53 and col 21, line 3 to col 22, line 35). Joseph also teaches a sizing cage subsystem (Fig 4, #23) surrounding the extruded film tube and including an electrically-actuable controllable actuator for moving the sizing cage inward and outward (col 7, lines 15-35) relative to the extruded film tube; a first non-contact sensor (Fig 4, #89) for measuring a distance between the cage subsystem and the extruded tube; wherein the executable program instructions include a cage position control routine which utilizes the cage subsystem-to-tube distance to calculate a location of the sizing cage subsystem (col 6, line 44 - col 7, line 2); the first non-contact sensor is mounted to a moving arm of the sizing cage subsystem, wherein movement of the sizing cage subsystem results in a corresponding movement of the first non-contact sensor (Figures 4 and 7A); a cage position routine which utilizes the actuator to reposition the sizing cage in response to a predetermined set point through a series of steps (col 6, line 44 - col 7, line 2); and during operation a user is permitted to introduce values to move the sizing cage (col 18, lines 25-45).

Joseph fails to teach second and third non-contact sensors for measuring a diameter of the extruded tube wherein the second and third non-contact sensors are located in fixed positions equally spaced around the sizing cage subsystem.

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Schott, Jr. teaches second and third non-contact sensors (Figs 2 and 4, #22) for measuring a diameter of the extruded tube, wherein the second and third non-contact sensors are located in fixed positions equally spaced around the sizing subsystem for the purpose of comparing the final diameter produced to a desired diameter and operating the device based on the diameter sensed (col 5, lines 9-52).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Joseph with second and third non-contact sensors as taught by Schott, Jr. because it enables control of the blown film apparatus based on the diameter of the blown film.

Response to Arguments

9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

The Applicant argues that in claim 7 the large and small distances are relative.

It is the relative nature of the distances that causes the claims to be vague and indefinite. Such vagueness does not serve to structurally define the apparatus. The structural difference of the apparatus between operation in each mode should be made clear. The use of ambiguous phrases such as "relatively large" should be replaced with "first" and the structural differences between the two differences defining the two modes should be defined.

The Applicant argues that claim 10 has been corrected.

While claim 10 has been partially corrected and clarified, the claim remains vague and indefinite particularly with regard to the first portion of the claim as discussed above.

The Applicant argues that the reference does not have lay flat sensors.

While this may be true, the second and third sensors as claimed in claim 1 are not limited to lay flat sensors.

The Applicant argues that the reference does not teach the second and third sensors controlling the cage.

While this may be true, the claims do not recite the second and third sensors controlling the cage. The first sensor as taught by the primary reference does control a cage (col 8, lines 28-41).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (571) 272-1130. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Benjamin Utech, can be reached at (571) 272-1137. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from the either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).



Joseph S. Del Sole
April 15, 2005